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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,440	04/26/2001	Ulrich A. Muller	10366-012	7500
9629	7590	08/09/2007	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			MILEF, ELDA G	
			ART UNIT	PAPER NUMBER
			3692	
			MAIL DATE	DELIVERY MODE
			08/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/842,440	Applicant(s) MULLER, ULRICH A.	
	Examiner Elda Milef	Art Unit 3692	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7,8,10-13,15,18 and 19 is/are rejected.
- 7) ☐ Claim(s) 3-6,9,14,16,17 and 20-24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>6/14/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1. Claims 1-24 are rejected under 35 U.S.C. 101 because the steps of testing data do not provide a practical application of an idea resulting in a useful, concrete, and tangible result. The claimed invention relates to testing data for decimal, scaling, domain, and for credibility of data. Accordingly, a tangible and useful result is not realized and the claims are therefore rejected under 35 U.S.C. 101. See MPEP § 2106 II (A), and State Street, 149 F.3d at 1373, 47 USPQ2d at 1601-02.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication

Art Unit: 3692

in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 2, 7, 8, 10-13, 15, 18,19 are rejected under 35 U.S.C. 102(a) as being anticipated by Dacorogna (Dacorogna, Michel M.; Muller, Ulrich A. Muller, Olivier V. Pictet, Casper G. DeVries. *The Distribution of Extremal Foreign Exchange Rate Returns in Extremely Large Data Sets*. O&A Research Group: June 28, 1995.)

Re claims 1,11,12: Dacorogna disclose a method of filtering time series data ("Data set construction and data filters") pp. 14-17; comprising the steps of:

testing said data for decimal error-see ("decimal error filter")-pp.14-15;

testing said data for scaling error-see("bid price filter") p. 14;

testing said data for domain error-see ("spread filter) pp. 15-16;

testing for credibility of said data that passes the tests for decimal error, scaling error and domain error by comparing nearby data in the time series.-see (decimal error, bid price, and spread filters, the application of weak and strong filters, tail statistics study...) pp.15-16.

Re claims 2 & 13: Dacorogna disclose a step of detecting a monotonic series of quotes. ("data in the form of a time series which is equally spaced in time...")-see p. 16 para. 2.

Re claims 7,8, 18,19: Dacorogna disclose testing for decimal error comprises computed a corrected quote, and testing the corrected quote for validity, credibility and comparing the credibility of the corrected quote with the credibility of the original quote.-see pp.14-16.

Re claims 10 & 15: Dacorogna disclose wherein a quote is tested relative to a series of quotes within a time window.
(Δt) p. 15.

Allowable Subject Matter

3. **Claims 3-6, 9, 14, 16-17, 20-24** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and the 35 USC § 101 rejection overcome.

Response to Arguments

4. Applicant's arguments filed 6/14/2007 have been fully considered but they are not persuasive.

Regarding claims 1, 7, 8, 11-19: In response to applicant's argument that the references fail to show certain

Art Unit: 3692

features of applicant's invention, it is noted that the features upon which applicant relies (i.e., how decimal filtering is done, process for testing for decimal error) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claims 2 and 13 and the applicant's suggestion that the elements of a time series being equally spaced in time is not the same as a step of detecting a monotonic series of quotes. The Dacorogna references teaches analyzing the equally spaced data to identify spurious large price changes.

Regarding the applicant's argument concerning the rejection of claims 1-19 under 35 U.S.C. 101, the argument provided by the applicant that work is being done on time series financial data does not overcome the 101 rejection because the steps of testing as disclosed by the applicant in claims 1 and 11 do not yield a useful, concrete, and tangible result. With respect to claims 1 and 11, the Examiner finds these claims to lack a tangible result. Examiner notes that the focus of this analysis is on the result, not the individual steps.

With respect to a tangible result, the process must produce a real-world result. The final steps of independent claims 1

Art Unit: 3692

and 11 state, "testing for credibility of said data that passes the tests for decimal error, scaling error and domain error by comparing nearby data in a time series" and "testing for credibility of said data by comparing nearby data in a time series." As the final step of the independent claims do not produce a real-world result, the Examiner finds that there is no tangible result produced.

Dependent claims are rejected based upon their dependence from rejected claims.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will

Art Unit: 3692


expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

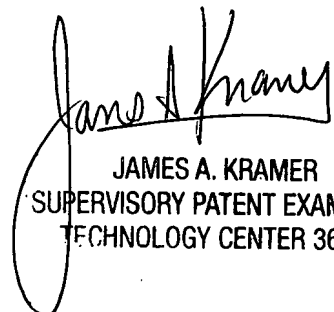
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elda Milef whose telephone number is (571)272-8124. The examiner can normally be reached on Monday -Thursday 8:30 am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on (571)272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3692

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Elda Milef
Examiner
Art Unit 3692

 7/27/07
JAMES A. KRAMER
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